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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GEORGE P. COPELAND, MICHAEL H. CONNER, and  
GREGORY A. FLURRY

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Appeal 2008-005683  
Application 09/740,460  
Technology Center 2400

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Decided: October 28, 2009

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Before JEAN R. HOMERE, JAY P. LUCAS, and STEPHEN C. SIU,  
*Administrative Patent Judges.*

SIU, *Administrative Patent Judge.*

DECISION ON APPEAL  
STATEMENT OF THE CASE

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-3, 5-15, 17, and 18. Claims 4 and 16 have been cancelled. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

*Invention*

The invention relates to the use of cache memory to enhance network server performance (Spec. 1, ll. 18-20).

Independent claims 1 and 9 are illustrative:

1. A software system supporting distributed web applications, comprising:
  - a parent server page, containing a call to a child server page;
  - a cache within a web server, containing code for the parent server page and child server page, wherein the code for the parent server page does not contain all the code for the child server page; and
  - a link associated with the call to the child server page, and encapsulating information for locating and executing the code for the child server page.
9. A method for caching a parent and a child server page, comprising:
  - storing code for the parent server page in a cache located internal to a web server, such that the code for the parent server page does not contain all lines of code for the child server page;
  - storing only one copy of the code for the child server page in the cache;
  - creating in the code for the parent server page a link to the singular copy of the code for the child server page for locating and executing the code for the child server page; and

associating the link with more than one call to the child server page to execute from the cache a plurality of the singular copy of the code for the child server page.

*References*

The Examiner relies upon the following references as evidence in support of the rejection:

Carneal	US 6,598,048 B2	Jul. 22, 2003
Helgeson	US 6,643,652 B2	Nov. 4, 2003

*Rejection*

Claims 1-3, 5-15, 17, and 18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carneal and Helgeson.

**ISSUE 1**

Appellants argue that Carneal fails to teach or suggest “caching parent server pages and child server pages” (App. Br. 6).

*Issue:* Did Appellants demonstrate that the Examiner erred in finding that Carneal teaches caching both parent server pages and child server pages?

**ISSUE 2**

Appellants argue that Carneal fails to teach or suggest “caching server pages within a web server” (App. Br. 6) and that “[t]he teachings of Carneal cannot be modified or combined with those of Helgeson to provide the claimed software system for caching server pages in a web server” (App. Br. 8).

*Issue:* Did Appellants demonstrate that the Examiner erred in finding that the teachings of Carneal and Helgeson can be combined to teach or suggest caching server pages within a web server?

### ISSUE 3

Appellants assert that “Carneal is silent as to the number of copies of child server page code that may be stored within the cache” (App. Br. 10).

*Issue:* Did Appellants demonstrate that the Examiner erred in finding that Carneal teaches storing only one copy of the code for a child server page in a cache?

### FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

1. Carneal teaches that a “proxy server 66 is designed to interface a plurality of web browsers 20A-20N to the Internet 24” (col. 5, ll. 56-58) where

the proxy server 66 may cache frequently accessed documents so that they are quickly available to other web browsers 20 which request them. For example, in a financial services organization, many different browsers may access the Wall Street Journal home page during any given day. If the proxy server 66 has caching ability, the Wall Street Journal home page may be cached after the first request of each day. Subsequent requesters receive the Wall Street Journal home page from the local cache rather than over the Internet 24. In general, caching

improves the performance of the system by reducing latency and saving network bandwidth.

(Col. 6, ll. 23-34).

2. Carneal teaches “prefetching” which involves caching documents that are likely to be requested by a client [such as] an inline object within a previously requested parent file. If the proxy server parses the originally parent file, the proxy server can determine that the document contains an external reference to an inline object and can begin retrieval of the inline object before the actual request arrives from the web browser.

(Col. 6, ll. 35-44).

3. Carneal teaches a distributed proxy server 68 having an “access point 70 [that] implements an object cache 71” (col. 7, ll. 63-64; fig. 6). Access point 70 is responsive to requests from web browser 20 (col. 8, ll. 14-15 and 50-51; fig. 7). Access point 70 forwards responses received from a remote server (col. 8, ll. 25-27; fig. 7) or responds with pre-fetched (cached) data (col. 9, ll. 6-7; fig. 7).

4. Carneal teaches that

the access-point component . . . caches [forwarded] inline objects until requested by the browser. If the access point component receives a request for an object which resides in the cache, the access point component returns the object without allowing the object request to be transmitted over the satellite link.

(Col. 3, ll. 27-32).

5. Helgeson teaches a “Web Content Server 800 XSP processor [that] allows control over caching” (col. 63, ll. 65-67).

## PRINCIPLES OF LAW

### *Claim interpretation*

“In the patentability context, claims are to be given their broadest reasonable interpretations. . . . [L]imitations are not to be read into the claims from the specification.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citations omitted).

### *Obviousness*

The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966).

If a proposed modification would render the prior art invention being modified inoperable or unsatisfactory for its intended purpose, then the Examiner has failed to make a *prima facie* case of obviousness. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984).

## ANALYSIS

### *Issue 1*

Appellants assert that “Carneal states that the parent file is forwarded to the requesting web browser and *provides absolutely no indication that the parent file may also be cached*” (App. Br. 7) (emphasis added). This argument is not persuasive. Carneal teaches caching a parent server page such as the Wall Street Journal home page (FF 1). Carneal also teaches caching of child server pages such as external references to inline objects (FF 2). We therefore agree with the Examiner that Carneal teaches caching of both parent server pages and child server pages.

For at least these reasons, we find that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s 35 U.S.C. § 103(a) rejections of claims 1-3, 5-15, 17, and 18 with respect to this issue.

### *Issue 2*

Appellants argue that “Carneal only provides teaching for caching inline objects . . . within a cache (71) located on the client side” (App. Br. 7). Appellants also argue that if “Carneal were modified for caching the prefetched inline objects within a web server (as suggested by the Examiner), instead of a client-side access point 70, the system of Carneal would not be able to reduce the time delay associated with the retrieval of inline objects over satellite link 62” (App. Br. 9).

Both arguments rely on the faulty premise that Carneal’s distributed proxy server 68 is merely a client of web server 26. Appellants admit that “access point component (70) [a component of distributed proxy server 68] . . . communicates with web browsers (20)” (App. Br. 6). The distributed proxy server forms a client-server relationship with each web browser. In these relationships, the distributed proxy server is a web server because of its responsiveness to web browser requests (FF 3). Because this distributed proxy server (itself a web server) contains a cache, Carneal teaches caching server pages within a web server.

Appellants note that the Examiner originally posited that “Carneal fails to disclose a cache within a web server” (App. Br. 7), thus necessitating the use of Helgeson’s teaching of a web server containing a cache (FF 5). In revisiting the rejection, the Examiner concludes that “Carneal teaches a cache in a web server” (Ans. 16). Appellants have not rebutted this latest conclusion even though it shows that combining Helgeson’s teachings with Carneal’s teachings does not render Carneal unsatisfactory for its intended use. Consequentially, we do not find reversible error in the Examiner’s finding that Carneal and Helgeson are combinable.

For at least these reasons, we find that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s 35 U.S.C. § 103(a) rejections of claims 1-3, 5-15, 17, and 18 with respect to this issue.

*Issue 3*

Appellants argue that “the Specification and present claims provide a means for improving cache capacity by requiring that only one copy of the child server page be cached, *regardless of the number of times it is called in the parent server page*” (App. Br. 10) (italicized emphasis added). This argument overreaches by requiring us to erroneously read limitations into the claims from the specification. *See In re Van Geuns*, 988 F.2d at 1184. Claims 9, 17, and 18 merely recite “storing only one copy of the code for the child server page in the cache.”

Even if we adopted Appellants’ narrow reading of the claims, we would not find their arguments persuasive. Carneal teaches data caching (FF 4), but provides no indication that multiple copies of the same data should be stored. Appellants assert that “Carneal is silent as to the number of copies [of data] that may be stored within the cache” (App. Br. 10). But an artisan possessing ordinary skill and creativity would find it obvious that storing more than one copy of cached data would be wasteful. Such an artisan would thus find it obvious to store only one copy of cached data, regardless of the number of times it is called in the parent server page.

For at least these reasons, we find that Appellants have not sustained the requisite burden on appeal in providing arguments or evidence persuasive of error in the Examiner’s 35 U.S.C. § 103(a) rejections of claims 9-15, 17, and 18 with respect to this issue.

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#### CONCLUSIONS OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not demonstrated:

1. that the Examiner erred in finding that Carneal teaches caching both parent server pages and child server pages (Issue 1);
2. that the Examiner erred in finding that the teachings of Carneal and Helgeson can be combined to teach or suggest caching server pages within a web server (Issue 2); and
3. that the Examiner erred in finding that Carneal teaches storing only one copy of the code for a child server page in a cache (Issue 3).

#### DECISION

We affirm the Examiner's decisions rejecting claims 1-3, 5-15, 17, and 18 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

msc

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